Relative standing of Islamic banks in liquidity management: A survey on private banks of Bangladesh

Nazneen Jahan Chaudhury and
Asfia Binte Osman
Department of Business Administration
International Islamic University Chittagong (IIUC), Bangladesh

Abstract
Commercial banks play a significant role in keeping wheel of an economy active. In Bangladesh two types of commercial banks are operating with their distinctive philosophy: Conventional and Islamic. This research work has been undertaken to measure the relative position of Islamic banks in terms of liquidity management. Data have been collected from secondary sources of information considering the fact that both banks have a widespread branch network and timely published financial results that are easy to get in their websites and also available on the internet. Liquidity positions of the sample banks have been analyzed through different ratios which have further been interpreted by using some statistical tools. Standing of Islamic banks in terms of liquidity management is good enough, but due to some practical problems its smooth operation is being interrupted. If suggested actions can be taken without undue delay, the position of Islamic banks compared to Conventional one would be much better.

Keywords Liquidity, Liquidity risk, Liquidity Management, Islamic Banks

Paper type Research paper

1. Introduction

Escalation of the financial sector is a significant issue for any economy. Proficient financial system acts as an active channel for assembling funds from savers to investors and thus helps to attain economic growth. Banking sector has a major contribution in the economic development of Bangladesh. Currently, there are two elementary forms of banking (1) Conventional Banking (2) Islamic Banking. Beside these two forms, there is a combined banking system which includes state owned, private and foreign banks. Chowdhury (2002) cited that the banking sector of Bangladesh is

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a combination of "nationalized, private and foreign banks."

Chaudhury (2015) asserted that banking sector of Bangladesh consists of 56 Scheduled Banks in the categories of "06 State Owned Commercial Banks (SOCBs), 02 Specialized Banks (SDBs), 39 Private Commercial Banks (PCBs) and 09 Foreign Commercial Banks (FCBs)." Among 39 PCBs, 31 banks are interest based and 08 banks are interest free. Sarker (2004) mentioned that at present 9 PCBs are operating 19 Islamic Banking branches along with their interest-based branches.

Banking industry is the leading industry in the financial system. Banks provide the essential funds to the units that are in under performance category in the economy. Islamic banking as a new standard started in Bangladesh in 1983 with the establishment of the first Islamic bank "Islami Bank Bangladesh Limited". The invention of interest-free banking system accelerated the money market which eventually led to the establishment of many new banks in compliance with Shariah and simultaneous inauguration of Islamic banking branches of many traditional banks. Usually for satisfying statutory reserve provisions and for security reasons, banks need to hold a definite slice of liquid assets. Ghannadian and Goswami (2004) defined liquidity of a bank as the ability to fulfill the demands of its depositors and honor loan request at maturity.

Sole (2007) found that for Islamic banks it is quite tricky to manage the desired liquidity in case of unexpected liquidity deficits because as per the Shariah law, Islamic banks cannot indulge in interest based transactions. Ahmad, Malik and Humayoun (2010) proclaimed that since Islamic banking is profit loss sharing (PLS) based and thus vulnerable to augmented risk; it would possibly need higher liquidity. Because of the Shariah law it is comparatively hard for the Islamic banks to invest the excess liquidity for short term. With a broaden functionality, Islamic banks are expected to manage their liquidity in a better way. Liquidity risk is the most common risk category confronted by both Conventional and Islamic banks. Ismail (2010) stated that liquidity risk normally prolongs due to the liquidity gap of banks. The final effect of such gap is that either there will be extra cash which is to be invested or shortage of cash that must be raised.

2. Review of literature

Williamson (2008) defined liquidity as the degree to which an asset or security can be converted into cash without affecting the price. Liquidity is a measure of a bank's capability to readily find the cash to meet customers' demand. It can be obtained from direct cash holdings in currency or from the central bank. In most cases it generates from holding securities that can be readily traded with minimum loss.

Another term that is very significant in this study is liquidity risk. Ruozi and Ferrari (2013) found that liquidity risk is created by the unlike maturity structure of assets and liabilities when banks become incapable to react instantly to request for payment. It compels the banks or financial institutions to sell financial assets even though the price is lower than the contemporary market value.

Several researchers (Berger & Bouwman, 2009; Bryant, 1980; Diamond, 2007; Diamond & Dybvig, 1983) identified the liquidity risk for banks and observed that the conversion of short-term deposits to long-term investments is one of the most dominant features in banking that may direct to liquidity risk. Others (Allen & Gale, 2004; Allen & Santomero, 1998; Berger & Bouwman, 2009) opined that maintenance of liquidity bears liquidity risk for both Islamic and conventional banks when banks fail to meet the liquidity needs of customers in the most cost effective way.

Dusuki (2007) scholarly discussed liquidity risk issues and diagnosed liquidity risk among Islamic banks. According to his study, three factors might be considered as the causes of liquidity risk. These features are: (1) Islamic financial products and activities (2) limited accessibility of *Shari'ah* friendly money market instruments (3) lender-of-last-resort (LOLR) facilities. In this study Khan and Ahmad (2001) further noted some factors which cause liquidity risk in Islamic banks. These are: (1) restricted accessibility of the *Shariah* friendly money market (2) intra-bank market (3) the sluggish development of financial instruments.

To manage liquidity risk, several theories have come into existence. All the theories are very much logical and appropriate for real execution. Under Commercial Loan theory prior to 1930, banks were stimulated to extend only short-term, self -liquidating loans. This theory signifies that the banks should lend money for short term rather than long term. But the theory has been criticized by Dodds (1982) and Nwankwo (1991). The Shiftability theory signified that any liquid asset could be used to meet deposit withdrawals. Especially, a bank could gratify its liquidity demands if it held assets that could be traded in the secondary market before their maturity. Dodds (1982) suggested that assets obviously need to meet three core conditions to fulfill liquidity requirements. These are: (1) shiftability (2) marketability (3) transferability. Around 1950 the concentration moved to the Anticipated Income theory which recommended that liquidity necessities and thus loan payments should be knotted to a debtor's expected income. Nzzotta (2004) observed that the theory gives importance on two aspects of a borrower as the ultimate assurance for making adequate liquidity i.e. (1) the earning potential (2) the creditworthiness. Nwankwo (1991) suggested that the theory indicates the movement towards "maturity

matching" approach by banks. According to Liability Management theory, developed in the 1960s, banks can meet liquidity requirements by borrowing from the money and capital markets. Emmanuel (1997) suggested that if banks need funds instantly, they may choose central bank or other solvent commercial banks to borrow money in order to overcome the crisis. Pyle (1971) and Hart and Jaffee (1974) considered bank's assets and liabilities may be treated as securities. Owing to this explanation, the bank may essentially be regarded as a portfolio of securities. Once that view is proposed, it is possible to put on the Portfolio theory developed in the 50's and 60's to the asset-liability management of a bank. Repullo (2003) held that liquidity management depends on hybrids of theories that are typically employed to obtain optimality.

Černohorský, Teplý and Vrábel (2010) found that many banks struggled to uphold sufficient liquidity when global financial crisis engulfed financial systems. Exceptional heights of liquidity provision were required from Central banks to sustain the crisis. It is mentioned that when bank failed to sustain even after receiving extensive support, a good number of banks were forced to merge or required resolution (BIS, 2009; Teplý, 2011). The crisis exhibited the significance of sufficient liquidity risk measurement and management. Not only these, some scholars also recommended different measures specially for Islamic Banks that can help them to minimize liquidity thus help to manage liquidity at the smoothest way possible. Islamic Financial Services Board (2008) observed liquidity management instruments for Islamic financial institutions and identified that commodity murabaha, mudarabah interbank investment and Islamic mutual funds are the most common instruments for liquidity management. The survey further recognized that reliance on central banks for liquidity management remains low. It is found that Islamic mutual funds, Islamic government investment certificates and short-term sukuk al-ijarah are usually conducted between central banks and Islamic banks. Islamic financial tools, such as tools offered by central bank and government securities are used by Islamic banks as internal sources. In addition, Ismail (2008) posited that to face liquidity risk Islamic banks use "central bank facility, government intervention, the Islamic money market and overseas investors as external sources of liquidity."

Greuning and Iqbal (2008) suggested that "Islamic banks should embrace liquidity reserves, standardize the redemption of time deposits, alleviate the amount of business losses and default in equity based financing, alleviate the extent of default in debt based financing, take initiative for internal liquidity arrangement with the parent company" to resolve regular liquidity related difficulties. Iqbal and Mirakhor (2007)

identified that a bank is said to have adequate liquidity potential when it has the ability to accommodate the *redemption* of time *deposits*.

Obaidullah (2005) suggested that in order to avoid the frequent happenings of losses and nonpayment in case of equity based financing, Islamic banks need to evaluate the business performance. It is also advised that by using the internal commitments, short term liquidity problem can be resolved. Greuning and Iqbal (2008) mentioned that for resolving foreseeable lopsided demand for liquidity, Islamic banks should "trade the held short term Islamic financial instruments, trade the long term Islamic financial tools and borrow from the Islamic money market. Therefore, to solve the erratic liquidity crisis, Islamic banks should borrow from the parent company. If not so, they can look forward to central bank emergency fund and government bailout package.

Researchers have conducted an extensive review of literature over management of liquidity risk of commercial banks especially Islamic banks. It has been witnessed that a large number of studies have been done over this concept both nationally and internationally. But these studies did not cover the concept that we are going to bring in. This study basically has been lead to measure the current condition of Islamic banks in liquidity management and to discover whether there is any noteworthy difference between liquidity management condition of Islamic banks and conventional banks. Hence, the study stands with few objectives in the following sections. The key objective of this study is to measure the degree of competency of Islamic banks from the perspective of liquidity management as compared to conventional banks. This study basically attempts:

a. To determine the relative liquidity position of Islamic and conventional banks.
b. To examine the lope holes responsible for adverse liquidity position of the respective banks.
c. To find out the factors that are harmful for Islamic banks in smooth liquidity management.
d. To put forward some suggestions to the Islamic banks to ensure improved liquidity position.

3. Methodology

This research work is confined to the financial data of five Islamic and five conventional banks. Both of the banks are selected based on wideness of branch network and publication of financial results on regular manner which are easily available in their websites and also loaded on the internet. This study used secondary data, which are collected from the

annual reports of the banks. The data is examined through different liquidity indicator ratios of the sample banks. These ratios comprise some asset based, some liability based as well as some ratios which are commonly used to measure liquidity position of banks. Asset based ratios are: cash position indicators, liquid securities indicators, riskless asset position ratio, net treasury funds position ratio and liquidity asset ratio. Liability-based ratios are: Short-term Deposit to Assets Ratio, Deposits composition ratio and transaction deposits ratio. Some, other common ratios are: core deposit ratio, loan deposit ratio, cash deposit ratio and capacity ratio. Besides, descriptive statistics such as average value, standard deviation (sd) and coefficient of variation (cv) are also used and presented through tabular form to conclude more specifically.

4. Data analysis and findings

The Table 1 below summarizes the overall liquidity condition of sample conventional banks and Islamic banks considering some liquidity ratios.

Table 1: Liquidity condition of sample banks

Liquidity Indicators	Liquidity Ratios	Average CV Of Conventional Banks	Average CV Of Islamic Banks	Supremacy
Asset based liquidity ratios	Cash Position Indicators	0.02232	0.025221	Conventional Banks
	Liquid Security Indicators	0.1198	0.39373	Conventional Banks
	Riskless Assets Position	0.165796	0.025888	Islamic Banks
	Net Treasury Fund Position	0.17996	0.122879	Islamic Banks
	Liquidity Asset Ratio	0.156187	0.085447	Islamic Banks
Liability based liquidity ratios	Short Term Deposits to Assets	0.063286	0.154839	Conventional Banks
	Deposits Composition Ratio	0.074686	0.176042	Conventional Banks
	Transaction Deposits Ratio	0.065599	0.245382	Conventional Banks
Other liquidity ratios	Core Deposit Ratio	0.022675	0.023448	Near to equal standing
	Loan Deposit Ratio	0.046411	0.030605	Islamic Banks
	Cash Deposit Ratio	0.065208	0.114787	Conventional Banks

Considering average CV of Net Treasury Fund Position ratio and Liquidity Asset Ratio, it can be easily observed that Islamic banks hold

better liquidity position as it keeps comparatively large amount of cash in vault and reserve with Bangladesh Bank to meet the immediate demand of the clients. But Cash position Indicator ratio shows a different scenario in respect of liquidity holding of commercial banks. According to this ratio conventional banks stands in better liquidity position. Liquid Security Indicator ratio shows amount of investment by banks in govt. securities as compared to total investment in shares and securities. The average CV of Islamic banks is greater than the average CV of conventional banks which indicates the better standing of conventional banks as compared to Islamic counterpart. But this is only because Islamic banks are reluctant to invest in interest based govt. securities and there is a very narrow scope for Islamic banks to make PLS based investment in govt. securities. Islamic banks tend to face more liquidity crisis as they cannot arrange fund from money market easily and are compelled to hold more cash in their hands. It ultimately makes the Riskless Asset position of Islamic banks better. Short Term Deposit to Total Asset ratio specifies the ability to absorb liquidity tremor. A greater ratio indicates superior ability to absorb liquidity shock. By looking at the average CV of Islamic banks it has been observed that Islamic banks have lower capacity to absorb the liquidity shock. Average CV of Deposits Composition Ratio and Transaction Deposit Ratio show that conventional banks are in superior position in respect of liquidity management. It occurred because the amount of term deposit and non-transaction able deposit of Islamic Banks is much greater than the Conventional banks. The Average CV of Core Deposit Ratio and Capacity ratio in both types of banks are almost similar. There exists no noteworthy difference in liquidity position between Islamic and Conventional banks from the perspective of these two ratios. A higher Loan (Investment) Deposit ratio indicates worse liquidity position for a bank. Here the average CV of Loan Deposit ratio of Islamic Banks is relatively lower than conventional banks which are an indication that Islamic banks hold better position in respect of liquidity management. By analyzing the average CV of Cash Deposit ratio it has been observed that conventional banks hold better liquidity position than the Islamic ones.

In a nutshell, it has been observed from the perspective of Asset based liquidity ratios Islamic Banks stands in supreme position. Again from the perspective of Liability based ratios Conventional banks secures better liquidity position. Considering other liquidity ratios both types of banks almost stand in equal position.

5. Findings of the study

a. CV of Cash Position Indicator ratio of conventional banks is superior to the Islamic Banks.
b. CV of Liquid Security Indicator ratio of conventional Banks is greater than Islamic banks.
c. CV of Riskless Assets Position, Net Treasury Fund Position and Liquidity Asset Ratio of Islamic Banks is higher than their counterparts.
d. CV of Short Term Deposits to Assets, Deposits Composition Ratio and Transaction Deposits Ratio of Traditional Banks is greater than Islamic Banks.
e. CV of Core Deposit Ratio and Capacity Ratio of both the banks are almost similar which indicates equal standing.
f. CV of Loan Deposit ratio of Shari'ah based Banks is higher than the conventional counterpart.
g. CV of Cash Deposit Ratio of Traditional Banks is upper than the Islamic Banks.

From the derived findings it has been noticed that Islamic or Shari'ah based banks are slightly lagging behind in terms of liquidity management as associated to the conventional banks. The major reasons responsible for this are listed below:

a. One major weakness of Islamic banks is that they discourage utilizing short term funds for long term purpose because of being PLS based financing nature.
b. Investment of Islamic Banks in assets is by nature less reversible and divisible.
c. Lack of fixed positive rate of return from investment.
d. Narrower scope for Deposit insurance enhances liquidity crisis.
e. A fewer number of Islamic banks (08) are operating in Bangladesh which interrupts interbank borrowing activity.
f. Due to unavailability of Islamic Capital market, Islamic banks profitability is adversely affected which ultimately hampers liquidity position of Islamic Banks.
g. Bangladesh Bank formulates policies and strategies which are sometimes against the Shari'ah principles. It makes operation of Islamic Banks more troublesome in its daily operations.
h. Failure of Islamic Banks in establishing co-operation among themselves both nationally and internationally.
i. Concept of Islamic banking is not very welcoming to general mass. More attention should be given in this regard.

j. Islamic banks lack support from conventional banks in day to day operations.
k. Inefficient liquidity management of Islamic banks may force them to go bankrupt. So special attention is needed to handle liquidity properly.

6. Policy implications

Islamic banks have to take immediate and proper actions as well as have to monitor the overall condition of liquidity management process to ensure better and fair liquidity position. They need to focus on significant development of the liquidity management ratios. But they will experience this when and only when they can take the following preemptive measures:

a. Islamic banks should search for better alternatives to arrange fund to meet immediate liquidity demand of their customers so that they can stay strict at their principle to match maturity of assets and liabilities. New Islamic Shari'ah based money market instruments should come into existence to make call money market easily accessible for the Islamic banks.
b. Favorable environment should be created to make Islamic capital market more effective so that assets of Islamic banks can be traded easily.
c. Bangladesh bank as well as government should extend all sorts of supports to help Islamic banks participate in profitable business ventures. A separate quota for Islamic banks can be proved to be helpful in this regard which can lead the Islamic banks towards earning a good return from investment. It will enhance their profit earning opportunity as well as help them make provision for liquidity reserve.
d. Takaful companies should support Islamic Banks through providing assurance against their deposit products. It will help them to offset the losses from investment activities
e. Bangladesh bank should provide favorable opportunities for establishment of new Islamic banks and increase number of branches of existing banks. It will strengthen their opportunity to expand and broaden their liquidity base.
f. Government should take proper steps to widen the base of Islamic Capital market so that Islamic banks can have easy access to capital market funds.
g. Policies and strategies set up by Bangladesh Bank should be in conformity with Shari'ah so that Islamic banks can run their

activities without any hassle. At least special attention should be given to the Islamic banks while making policies.

h. Islamic banks should be more careful and cautious in having and building good relationships within themselves. It will help them manage liquidity smoothly worldwide.
i. Islamic banks should concentrate more on creating awareness among general mass regarding Shari'ah based banking. The more people would be habituated to it the more liquidity would be ensured.
j. Conventional banks can extend their support to Islamic banks by providing interest free funds at the time of dire needs. It will help them enrich relationship among themselves and upgrade phase of development.
k. Board of directors must be more cautious in liquidity and liquidity risk management. They should co-ordinate liquidity functions with other concerned bodies and institutions in such a way that will help them bring success in this regard.

7. Conclusion

Considering overall analysis on liquidity condition of both types of banks it is clear that Islamic banks liquidity management is not better than the conventional counterpart. Despite of some unique features, Islamic banks liquidity management are affected by some undesirable factors. Till now the position of Islamic banks in terms of liquidity management in Bangladesh is competitive enough. If the shortcomings can be handled properly, hopefully the day is not far away when Islamic banks will be capable to hold the supreme position in this aspect and would be recognized as an ideal institution in the financial system and as a Muslim dominated country it should be given the top priority.

8. Future research

This study is based upon inadequate information. If sufficient information can be found, then the study can be conducted by using a variety of liquidity ratios. Annual reports of all the banks are not available on internet. If data can be collected easily, then more authentic information can be extracted from this type of research and more rigorous statistical tools can be applied for better result.

References

Ahmad, A., Malik, M. I., & Humayoun, A. A. (2010). Banking developments in Pakistan: A journey from conventional to Islamic banking. *European Journal of Social Sciences*, *17*(1), 12-17.

Allen, F., & Gale, D. (2004). Financial fragility, liquidity and asset prices. *Journal of the European Economic Association, 2(6),* 1015-1048.

Allen, F., & Santomero, A. M. (1998). The theory of financial intermediation. *Journal of Banking & Finance, 21*(11-12), 1461-1485.

Berger, A. N., & Bouwman, C. H. S. (2009). Bank liquidity creation. *Review of Financial Studies, 22*(9), 3779-3837.

BIS. (2009). *International framework for liquidity risk measurement, standards and monitoring*. Basel: Bank for International Settlements.

Bryant, J. (1980). A model of reserves, bank runs, and deposit insurance. *Journal of Banking and Finance, 4(4),* 335-344.

Černohorský, J., Teplý, P., & Vrábel, M. (2010). Liquidity market support during the global crisis. *Scientific Papers of the University Pardubice*, *17(2),* 39-49.

Chaudhury, N. J. (2015). Fund management practices of selected Islamic commercial banks in Bangladesh. *Journal of Islamic Economics, Banking and Finance, 11(3),* 135-152.

Chowdhury, A. (2002). Politics, society and financial sector reform in Bangladesh. *International Journal of Social Economics, 29*(12), 963-988.

Diamond, D. W. (2007). Banks and liquidity creation: A simple exposition of the Diamond-Dybvig model. *Economic Quarterly*, *93*(2), 189-200.

Diamond, D. W., & Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *Journal of Political Economy, 91*(3), 401-419.

Dodds, J. C. (1982). The term structure of interest rates: A survey of the theories and empirical evidence, *Managerial Finance, 8*(2), 22-31.

Dusuki, A. W. (2007, September 3-4). *Commodity Murabahah Program (CMP): An innovative approach to liquidity management*. Paper presented at the 5th International Islamic Finance Conference, organized by Monash University-Kuala Lumpur, Malaysia.

Emmanuel, N. R. (1997). *Commercial banking in an era of deregulation (3rd ed.)*. USA: Greenwood Publishing Group.

Ghannadian, F. F., & Goswami, G. (2004). Developing economy banking: The case of Islamic banks. *International Journal of Social Economics*, *31*(8), 740-752.

Greuning, H., & Iqbal, Z. (2008). *Risk analysis for Islamic banks*. Washington DC: The World Bank Publisher.

Hart, O. D., & Jaffee, D. M. (1974). On the application of portfolio theory to depository financial intermediaries. *The Review of Economic Studies*, *41*(1), 129-147.

Iqbal, Z., & Mirakhor, A. (2007). *An introduction to Islamic finance: Theory and practice.* Singapore: John Wiley & Sons (Asia).

Islamic Financial Service Board (IFSB). (2008). *Issues in strengthening liquidity management of institutions offering Islamic Financial Services: The development of Islamic money markets*. Malaysia: IFBS.

Ismail, R. (2008). Shariah issues in liquidity risk management: A survey. *Review of Islamic Economics, 12*(2), 45-67.

Ismal, R. (2010). Assessment of liquidity management in Islamic banking industry. *International Journal of Islamic and Middle Eastern Finance and Management*, *3*(2), 147-167.

Khan, T., & Ahmad, H. (2001). *Risk management: An analysis of issues in the Islamic financial industry*. Jeddah: Islamic Development Bank.

Nwankwo, U. (1991). *Economic Agenda for Nigeria.* Lagos, Nigeria: Centralist Production Ltd.

Nzzotta, S. M. (2004). Money, banking and finance: Theory and practice. *Owerri: Hudson-Jude Nigeria Publishers*.

Obaidullah, M. (2005). *Islamic Financial Services*. Jeddah.

Pyle, D. (1971). On the theory of financial intermediation, *Journal of Finance, 26*(3), 737-747.

Repullo, T. M. (2003). *Liquidity, risk taking and the lender of last resort*. CEMFI Madrid.

Ruozi, R., & Ferrari, P. (2013). Liquidity risk management in banks. *Economic and Regulatory Issues*. Heidelberg: Springer.

Sarkar, A. W. (2004). *Developments of Islamic Banking Industry in Bangladesh during January-March, 2015*. Research Department, Bangladesh Bank.

Sole, J. (2007). *Introducing Islamic Banks into Conventional Banking Systems.* International Monetary Fund.

Teplý, P. (2011). The future regulatory challenges of liquidity risk management. *World Academy of Science, Engineering and Technology, 73*, 945-949.

Williamson, S. D. (2008). *Liquidity constraints in the New Palgrave Dictionary of Economics* (2nd ed.), edited by Steven N. Durlauf and Lawrence E. Blume.

Corresponding author
Nazneen Jahan Chaudhury can be contacted at: nazneenchy@yahoo.com

Appendix

Conventional Banks

DBBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev.	CV
CPI	0.889025	0.865973	0.847299	0.867432	0.02090135	0.024096
LSI	0.934526	0.951975	0.960168	0.94889	0.01309671	0.013802
RAP	0.976878	0.950864	0.926808	0.951517	0.02504115	0.026317
NTFP	0.076168	0.079664	0.059642	0.071825	0.01069468	0.1489
LAR	0.280553	0.273535	0.232789	0.262293	0.02579066	0.098328
STDA	0.439928	0.468684	0.483881	0.464165	0.02232209	0.048091
DCR	0.513622	0.714194	0.721196	0.649671	0.11787382	0.181436
TDR	1.322837	1.625632	1.793612	1.580694	0.23858316	0.150936
Core DR	0.772493	0.756993	0.753661	0.761049	0.01004969	0.013205
LDR	0.743919	0.760969	0.830284	0.778391	0.04574235	0.058765
Cash DR	0.249452	0.249202	0.203379	0.234011	0.02652819	0.113363
CR	0.574672	0.576048	0.625753	0.592158	0.02910224	0.049146

NCCBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev.	CV
CPI	0.844739	0.830697	0.812147	0.829194	0.0163481	0.019716
LSI	12.03967	9.461414	12.88815	11.46308	1.78464781	0.155687
RAP	7.152652	6.037186	7.788024	6.992621	0.8863214	0.126751
NTFP	5.780329	6.96478	5.140507	5.961872	0.92558708	0.155251
LAR	0.300872	0.374039	0.274247	0.316386	0.0516732	0.163323
STDA	4.922925	4.363991	4.395932	4.560949	0.31388665	0.06882
DCR	1.209383	1.205534	1.347489	1.254135	0.08087004	0.064483
TDR	13.36429	12.21646	11.5889	12.38988	0.90030941	0.072665
Core DR	0.781253	0.76698	0.749299	0.765844	0.01600748	0.020902
LDR	0.909792	0.877066	0.976203	0.92102	0.05051374	0.054845
Cash DR	0.149563	0.154835	0.156974	0.153791	0.0038145	0.024803
CR	0.710778	0.672692	0.731468	0.704979	0.02981417	0.042291

ABBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev.	CV
CPI	0.819227	0.821105	0.796997	0.812443	0.01340962	0.016505
LSI	16.58093	17.93002	17.74656	17.41917	0.73170847	0.042006
RAP	7.835939	8.894665	9.431818	8.720807	0.81202074	0.093113
NTFP	5.176899	4.451522	3.858488	4.495636	0.66031159	0.146878
LAR	0.269498	0.241033	0.233663	0.248065	0.01892408	0.076287
STDA	4.785573	5.328622	5.289604	5.1346	0.30289488	0.058991
DCR	1.243548	1.258317	1.327886	1.276583	0.04503853	0.035281
TDR	11.27677	12.09119	11.59518	11.65438	0.41042416	0.035216
Core DR	0.765057	0.766785	0.737234	0.756359	0.0165853	0.021928
LDR	0.916863	0.938128	0.998125	0.951039	0.04214131	0.044311
Cash DR	0.133333	0.135891	0.156397	0.141874	0.01264229	0.089109
CR	0.701453	0.719343	0.735851	0.718882	0.01720396	0.023932

NBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev.	CV
CPI	0.872514	0.847098	0.84661	0.855407	0.01481681	0.017321
LSI	8.94492	9.877739	5.486682	8.103114	2.31340084	0.285495
RAP	5.010467	12.45127	6.250863	7.904201	3.98641998	0.504342
NTFP	8.304661	4.523414	9.171151	7.333075	2.47150758	0.337036
LAR	0.452294	0.230058	0.408868	0.36374	0.1177905	0.323831
STDA	3.742239	3.896205	3.775759	3.804734	0.08096899	0.021281
DCR	1.148381	1.235492	1.205979	1.196618	0.04430353	0.037024
TDR	11.24745	11.47225	12.1842	11.63463	0.48902787	0.042032
Core DR	0.809073	0.777632	0.779958	0.788888	0.01751933	0.022208
LDR	0.801208	0.869206	0.847768	0.839394	0.03476391	0.041415
Cash DR	0.144224	0.167432	0.160428	0.157361	0.01190432	0.07565
CR	0.648235	0.675923	0.661223	0.661794	0.01385249	0.020932

PBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev	CV
CPI	0.88549	0.855942	0.827335	0.856256	0.029079	0.033961
LSI	7.929827	6.460199	7.225871	7.205299	0.73502994	0.102012
RAP	5.134449	4.393216	4.881961	4.803208	0.37683954	0.078456
NTFP	7.680861	9.570517	8.386397	8.545925	0.9548751	0.111735
LAR	0.463556	0.587294	0.514628	0.521826	0.06218251	0.119163
STDA	3.650899	3.188462	2.883337	3.2409	0.38645851	0.119244
DCR	1.193165	1.178298	1.302116	1.224526	0.0676044	0.055209
TDR	8.326296	8.236274	7.905793	8.156121	0.22141391	0.027147
Core DR	0.813537	0.787442	0.758305	0.786428	0.02763009	0.035134
LDR	0.796129	0.756559	0.804784	0.785824	0.02571094	0.032718
Cash DR	0.163341	0.162266	0.169343	0.164983	0.00381352	0.023115
CR	0.64768	0.595746	0.610271	0.617899	0.02679396	0.043363

Islamic Banks

IBBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev	CV
CPI	0.939354	0.927184	0.924449	0.930329	0.0079347	0.008529
LSI	0.963691	0.96609	0.960236	0.963339	0.0029429	0.003055
RAP	1.054994	1.076529	1.056074	1.062532	0.0121333	0.011419
NTFP	0.065556	0.059046	0.06428	0.062961	0.0034498	0.054792
LAR	0.261605	0.276168	0.272075	0.269949	0.0075108	0.027823
STDA	0.376139	0.364067	0.370412	0.370206	0.0060389	0.016312
DCR	0.396646	0.319647	0.352632	0.356308	0.0386305	0.108419
TDR	0.792218	0.743378	1.225514	0.92037	0.2653882	0.288349
Core DR	0.858946	0.859407	0.848278	0.855544	0.00629622	0.007359
LDR	0.859797	0.826607	0.861603	0.849335	0.01970435	0.0232
Cash DR	0.169935	0.14757	0.165572	0.161025	0.011855053	0.073622
CR	0.738519	0.710391	0.730879	0.726596	0.014544541	0.020017

AIBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev	CV
CPI	0.915674	0.891113	0.858193	0.888327	0.0288419	0.032468
LSI	0.767615	0.76746	0.695085	0.743386	0.0418304	0.05627
RAP	0.947321	0.924377	0.885167	0.918955	0.0314296	0.034202
NTFP	0.092665	0.09206	0.108905	0.097877	0.009556	0.097633
LAR	0.225829	0.223566	0.252554	0.233983	0.016123	0.068907
STDA	0.149184	0.543877	0.47566	0.389574	0.2109593	0.541513
DCR	0.150665	0.456836	0.4358	0.347767	0.1710193	0.491764
TDR	0.22622	2.345156	2.009793	1.527056	1.138968	0.745858
Core DR	0.814157	0.792871	0.741518	0.782849	0.037342016	0.0477
LDR	0.891716	0.879467	0.956536	0.90924	0.04141498	0.045549
Cash DR	0.238507	0.240017	0.304214	0.260913	0.037507674	0.143756
CR	0.725996	0.697304	0.709289	0.710863	0.01441078	0.020272

FSIBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev	CV
CPI	0.932236	0.970309	1.007315	0.969953	0.0375406	0.038704
LSI	0.829664	0.928848	0.914474	0.890996	0.0535985	0.060156
RAP	0.969451	1.018289	1.054859	1.014199	0.0428506	0.042251
NTFP	0.063283	0.073313	0.101039	0.079212	0.0195566	0.246891
LAR	0.171774	0.200804	0.254703	0.209094	0.0420814	0.201256
STDA	0.075414	0.078384	0.06974	0.074513	0.0043921	0.058944
DCR	0.075414	0.078384	0.06974	0.074513	0.0043921	0.058944
TDR	0.112024	0.117685	0.120368	0.116693	0.0042599	0.036505
Core DR	0.86096	0.890797	0.901194	0.884317	0.020885077	0.023617
L DR	0.819539	0.834896	0.809679	0.821371	0.012708032	0.015472
Cash DR	0.156289	0.171559	0.229871	0.185907	0.038832607	0.208882
CR	0.705591	0.743723	0.729678	0.726331	0.019285214	0.026552

ICB

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev	CV
CPI	0.916871	0.934817	0.965341	0.93901	0.024506	0.026098
LSI	0.009524	0	0	0.003175	0.0054986	1.732051
RAP	0.91701	0.934817	0.965341	0.939056	0.0244429	0.026029
NTFP	0.059568	0.065825	0.072767	0.066053	0.0066026	0.099958
LAR	0.139691	0.143774	0.16302	0.148829	0.012459	0.083714
STDA	0.116759	0.129867	0.141378	0.129335	0.0123185	0.095245
DCR	0.039742	0.043345	0.052375	0.045154	0.0065077	0.144122
TDR	0.16307	0.180208	0.195511	0.179596	0.016229	0.090364
Core DR	0.836887	0.856868	0.875088	0.856281	0.01910718	0.022314
LDR	0.817794	0.768206	0.823387	0.803129	0.030373133	0.037818
Cash DR	0.16675	0.16779	0.18629	0.17361	0.010993559	0.063323
CR	0.684402	0.658251	0.720536	0.68773	0.031275592	0.045477

SIBL

Liquidity Ratios	2013	2014	2015	Average	Stand. Dev	CV
CPI	0.87666	0.888016	0.912143	0.892273	0.0181208	0.020309
LSI	0.644179	0.806431	0.78016	0.74359	0.0870889	0.11712
RAP	0.920098	0.921327	0.945697	0.929041	0.0144381	0.015541
NTFP	0.060245	0.072566	0.075196	0.069336	0.007982	0.115122
LAR	0.173934	0.184797	0.190313	0.183014	0.0083335	0.045535
STDA	0.147437	0.147202	0.163775	0.152805	0.0095015	0.062181
DCR	0.194416	0.169728	0.171604	0.178582	0.0137441	0.076962
TDR	0.225633	0.256513	0.248575	0.243574	0.0160357	0.065835
Core DR	0.806408	0.809096	0.830581	0.815362	0.013248412	0.016249
LDR	0.841506	0.867501	0.895293	0.8681	0.0268982	0.030985
Cash DR	0.161824	0.187229	0.188734	0.179262	0.015120979	0.084351
CR	0.678598	0.701891	0.743613	0.708034	0.032939955	0.046523